RCA

7025

HIGH-MU TWIN TRIODE

9-PIN MINIATURE TYPE

For high-fidelity audio-amplifier applications critical as to noise and hum. In other respects, the 7025 is similar to the 12AX7.

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater arrangement	*Series*	*Parallel*	
Voltage.	12.6	6.3	ac or dc volts
Current.	0.15	0.3	. . . . . .amp

Direct Interelectrode Capacitances (Approx.):°

	Unit No.1	*Unit No.2*	
Grid to plate. . .	1.7	1.7	. . . . . . $\mu\mu$f
Grid to cathode and heater . . .	1.6	1.6	. . . . . . $\mu\mu$f
Plate to cathode and heater . . .	0.46	0.34	. . . . . . $\mu\mu$f

Equivalent-Noise and Hum Voltage (Referenced to Grid):

Values are for Each Unit

Average Value (RMS). . . . . 1.8 microvolts

Measured in "true rms" units under the following conditions: heater volts = 6.3 ac (parallel connection), center-tap of heater transformer connected to ground, dc plate-supply volts = 250, plate load resistor (megohms) = 0.1, cathode resistor (ohms) = 2700, cathode-bypass capacitor (μf) = 100, grid resistor (ohms) = 0, and amplifier covering frequency range between 25 and 10,000 cps.

Maximum Value (RMS). . . . . 7 microvolts

Measured in "true rms" units under the same conditions as for "Average Value" except that the cathode resistor is unbypassed, and grid resistor (megohms) = 0.05.

Characteristics, Class A_1 Amplifier (Each Unit):

Plate Voltage.	100	250	volts
Grid Voltage	-1	-2	volts
Amplification Factor	100	100	
Plate Resistance (Approx.)	80000	62500	ohms
Transconductance	1250	1600	μmhos
Plate Current	0.5	1.2	ma

Mechanical:

Operating Position	Any
Maximum Overall Length	2-3/16"
Maximum Seated Length.	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) .	1-9/16" ± 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline.	*See General Section*
Bulb	T6-1/2

°: See next page.

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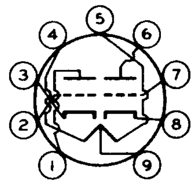
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Base . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW 9A

Pin 1 - Plate of Unit No.2
Pin 2 - Grid of Unit No.2
Pin 3 - Cathode of Unit No.2
Pins 4 & 9 - Heater of Unit No.2
Pins 5 & 9 - Heater of Unit No.1



Pin 6 - Plate of Unit No.1
Pin 7 - Grid of Unit No.1
Pin 8 - Cathode of Unit No.1
Pin 9 - Heater Mid-Tap

AMPLIFIER — Class A_1

Values are for Each Unit

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE.	330	max.	volts
GRID VOLTAGE:			
Negative-bias value.	55	max.	volts
Positive-bias value.	0	max.	volts
PLATE DISSIPATION.	1.2	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200▲	max.	volts

Typical Operation as Resistance-Coupled Amplifier (Each Unit):

See RESISTANCE-COUPLED AMPLIFIER CHART No.25 at front of Receiving Tube Section

° Without external shield.

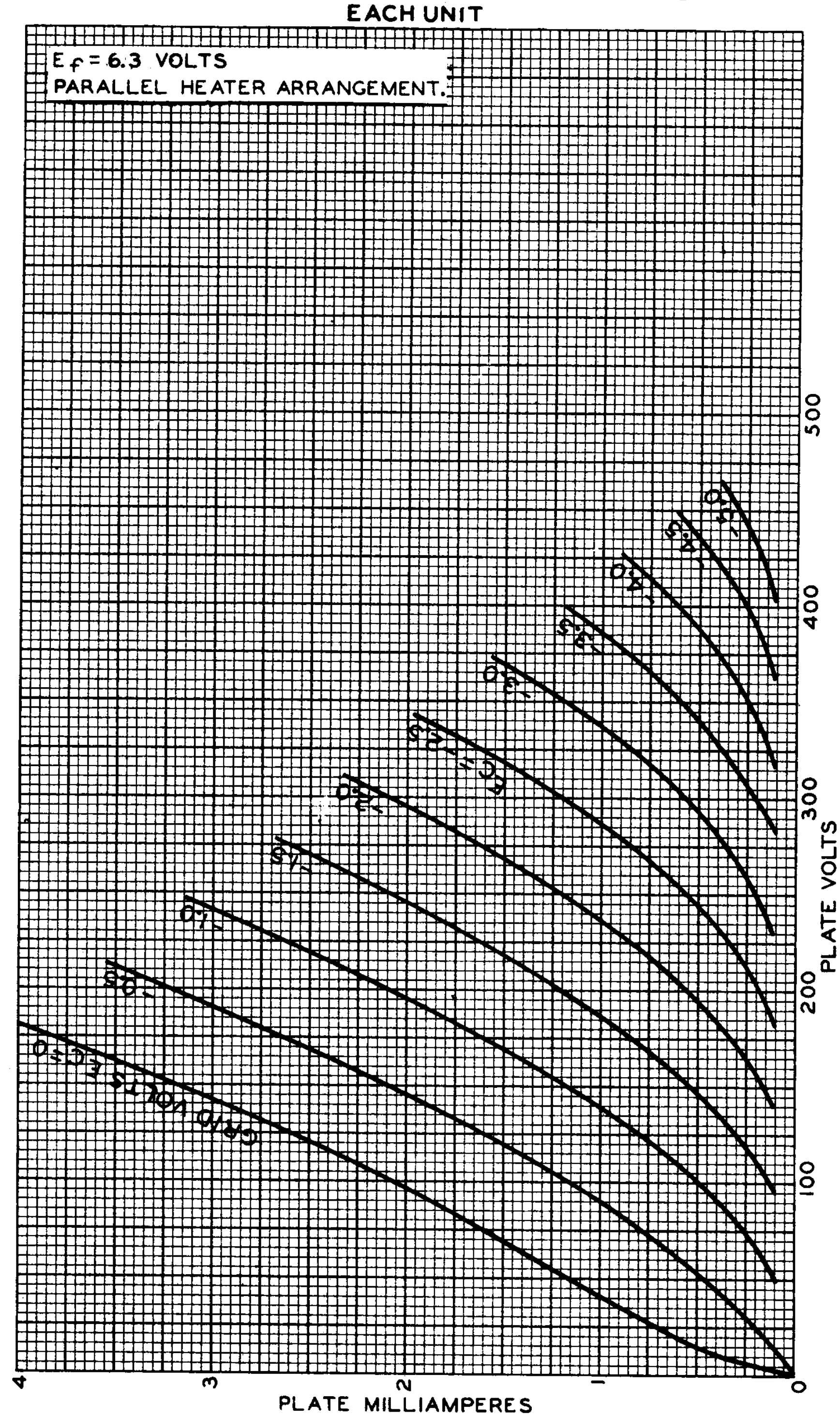
▲ The dc component must not exceed 100 volts.

OPERATING CONSIDERATIONS

Parallel heater arrangement is recommended for use in high-gain, resistance-coupled-amplifier applications such as in the preamplifier stages of phonographs, microphones, and tape recorders. With closely paired, electrostatically shielded heater leads, a hum-balance control is unnecessary when the center-tap of the heater transformer is connected to ground. In applications where the heater-transformer winding does not have a center-tap, a 100-ohm hum-balancing potentiometer should be connected across the heater leads with the slider connected to ground.

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AVERAGE PLATE CHARACTERISTICS
EACH UNIT



ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSE

92CM-6879

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AVERAGE CHARACTERISTICS
EACH UNIT

